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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/217,595	12/22/1998	JARON Z. LANIER	5181-10802	4225

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EXAMINER

TREAT, WILLIAM M

ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 09/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	09/217,595	Applicant(s)	Lanier et al.
Examiner	W. TREAT	Group Art Unit	2183

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 (three) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

### Status

Responsive to communication(s) filed on 6/11/02

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

Claim(s) 1-94 is/are pending in the application.

Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-94 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119 (a)-(d)

Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

### Attachment(s)

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_  Interview Summary, PTO-413

Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

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1. Claims 1-94 are presented for examination.
2. In view of the Supplemental Appeal Brief filed on 5/30/02, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

3. The reissue oath/declaration filed with this application is defective (see 37 CFR 1.175 and MPEP § 1414) because of the following:

Currently, applicants have failed to identify at least one error which is relied upon to support the reissue application and they, therefore, have a defective reissue declaration.

4. Claims 1-94 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251. See 37 CFR 1.175. The nature of the defect is set forth above.

5. Claims 31-94 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d

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1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

6. Applicants' independent claims 31, 66, 72, 77, 90, and 94 as well as their dependent claims are an attempt to recapture subject matter of claims 1-30 which was surrendered by applicants when they canceled their original claims 1-30 in response to the examiner's rejection and then presented amendments to the claims to make the claims allowable over the rejection. The original subject matter of claims 1-30 was surrendered as well as the subject matter of the amendments to make the claims allowable.

7. To make clear the extent of applicants' attempt to recapture, the examiner has chosen to examine applicants' claim 1 in the form which the examiner allowed based on the amendment presented to make the claims allowable over the examiner's rejection. It reads as follows.

**CLAIM 1.** A simulating apparatus comprising:

modeling means for creating a model of a physical environment in a computer database;

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first body sensing means, disposed in close proximity to a part of a first body, for sensing a physical status of the first body part relative to a first reference position;

second body sensing means, disposed in close proximity to a part of a second body, for sensing a physical status of the second body part relative to a second reference position;

first body emulating means, coupled to the first body sensing means, for creating a first cursor in the computer database, the first cursor including plural first cursor nodes and emulating the physical status of the first body part, the first body emulating means including a first point hierarchy and a first data flow network, the first point hierarchy for controlling a shape and an orientation of the first cursor and for attaching each of the plural first cursor nodes hierarchically with at least one other of the plural first cursor nodes, the first data flow network for controlling motion of the first cursor and the first data flow network including a first

interconnection of first input units, first function units and first output units, the first input unity receiving the physical status of the first body part, each first function unit including at least one input and at least one output and calculating, based on the at least

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one input, a value for each of the at least one output, and the first output units for producing position and orientation values for a portion of the plural first cursor nodes [emulating the physical status of the first body part]; first integrating means, coupled to the modeling means and to the first emulating means, for integrating the first cursor with the model;

second body emulating means, coupled to the second body sensing means,

for creating a second cursor in the computer database, the second cursor including plural second cursor nodes and emulating the physical status of the second body part, the second body emulating means including a second point hierarchy and a second data flow network, the second point hierarchy for controlling a shape and an orientation of the second cursor and for attaching each of the plural second cursor nodes hierarchically with at least one other of the plural second cursor nodes, the second data flow network for controlling motion of the second cursor and the second data flow network including a second interconnection of second input units, second function units and second output units, the second input units receiving the physical status of the second body part, each second function unit including at least one input and at least one output and calculating, based on the

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at least one input, a value for each of the at least one output, and  
the second output units for producing position and orientation values  
for a portion of the plural second cursor nodes [emulating the physical status of the second  
body part]; and  
second integration means, coupled to the modeling means and to the  
second body emulating means, for integrating the second cursor with  
the model.

8. Applicants presented virtually the same basic, carefully-chosen, amendment limitations underlined in claim 1 in independent claim 26 of original Patent No. 5,588,139 to make it and its dependent claims allowable over the examiner's rejection. Another amendment carefully considered as to limitations was presented to make claim 30 allowable over the examiner's rejection. The full limitations set forth in the language of those amendments is conspicuously missing from all of applicants' new independent claims. Applicants' omission from the new reissue claims of limitations set forth in the amendments in the original patent presented to make their claims allowable over the examiner's rejection constitutes recapture of surrendered subject matter. Therefore, each of applicants' new claims, all of which omit one or more of the limitations of the subject matter surrendered by virtue of cancellation of the original claims and by virtue of the amendments presented to make their claims allowable over the examiner's rejection, can be seen to constitute recapture.

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9. In defense of their recapture efforts applicants have advanced three major arguments on their behalf.

10. First applicants have argued only the language argued by applicants as distinguishing over the prior art in the original application should be considered as a limitation to their broadening of their claim language and not the complete language of their amendments. The examiner would remind applicants there is an Examiner Interview Summary Record (paper no. 14, mailed 2/9/96) stating the examiner had agreed to addition of material to the specification taken from applicants' appendix to support the new claim language applicants were going to submit. The added claim language was not introduced on a whim nor was applicant required to add more language than necessary to render his claims patentable. Also, very similar limiting language was added to each of applicants' original independent claims and never the much broader language applicants now argue. The examiner would merely note that self-serving arguments such as applicants' are typically given little weight by the courts.

11. Second, applicants have argued in support of rejected claims 31-94:

Deliberately canceling or amending a claim in an effort to overcome a reference strongly suggests that the applicant admits that the scope of the claim before the cancellation or amendment is unpatentable, but it is not dispositive because

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other evidence in the prosecution history may indicate to the contrary. *In re Clement, 45 USPQ.2d 1161, 1164 (Fed. Cir. 1997).*

The facts are that the examiner applied a rejection and applicants amended (i.e. canceled) all 30 claims because they failed to distinguish over the prior art of record. They specifically asked for and were granted a personal interview to discuss amendments which might make their claims allowable over the examiner's rejection. They then presented the full limitations set forth in the language noted above as an amendment to each of their claims 1-25, very similar limitations in the amendment to independent claim 26 and its dependents 27-29, as well as the limiting language of the amendment to independent claim 30, in order to secure an allowance. There is no probative evidence in the prosecution history to suggest otherwise.

12. Finally, applicants have argued:

As noted in *Chisum on Patents*, a patentee may obtain on reissue a claim that varies materially from the claim originally surrendered even though it omits a limitation intentionally added to obtain issuance of the patent.

They have then argued specific language for specific claims as representing material differences from the original claims.

13. For claim 36 they recite "wherein the second set of data is received across a network". Claim 1 of the patent (lines 31-39) recites "the second data flow network including a second interconnection of second input units receiving the physical status of the second body part... Only if one ignores the cited language of claim 1 and equivalent language in claims 26 and 30

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could one possibly conclude the language recited in claim 36 differs materially in any way from that of claims 1, 26, and 30.

14. For claim 37 applicants recite “an Ethernet link, a phone link, an ISDN link, or a satellite link”. These are all prior art forms of networks for which applicants have supplied no specific enablement in their specification other than to merely recite them. Therefore, applicants must be depending upon the knowledge of one of ordinary skill to implement these conventional forms of networks. Applicants specifically recite use of networks in each of their patented claims. That one of ordinary skill would use known, conventional high-speed networks for their intended purpose (i.e. transmission of data quickly to provide real-time response) is neither surprising nor does it constitute patentable differentiation. It is ridiculous to argue that such language constitutes a material difference.

15. For claim 44 applicants recite “machines, articles of manufacture, animals, molecules...” Original claims 7 and 9 which were canceled recite a “virtual object”. Original claims 19 and 25 which were canceled recite “human being”. Figures 9, 11, and 12 of applied prior art reference Fisher et al. show a virtual world populated by various shapes, machines, articles of manufacture, etc. The concept behind a virtual world is that it can be populated by anything for which one has the imagination and computing power. Once again, what applicants propose as a material difference is merely conventional (i.e., the concept taught in the prior art).

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16. For claim 68 applicants recite “one or more audio display devices configured to produce three-dimensional sounds. This was claimed in amended (i.e. canceled) original claim 23 which has two audio devices presenting the sound model (i.e., three-dimensional sounds) to a user’s two ears. Once again, applicants are arguing as materially different subject matter which already failed to distinguish over the prior art.

17. For claim 69 applicants argue a material difference based on various forms of body part sensing means. Claim 1 recites an equivalent body sensing means, and its dependent claims 27-29 recite many of the specific means recited in claim 69. Once again, applicants argue trivial differences as material differences.

18. For claim 94 applicants recite “modify a virtual three-dimensional work piece based on the motion of the first cursor within the virtual world”. If this were a material difference, then the language of original claim 7 reciting “wherein the model includes a virtual object, and further comprising first object manipulating means, coupled to the first body emulating means, for manipulating the virtual object with the first cursor in accordance with corresponding gestures” should have prevailed over the prior art. Yet, it failed to do so. Applicants have no material difference.

19. Finally, applicants would have us believe that their system claimed as software embodied on a computer-readable medium or as a kit constitutes a material difference justifying omission of limitations. Anyone who reads claim 1 and its dependents in light of applicants’ specification readily recognizes the claims encompass both the hardware and

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software of applicants' system and would prohibit any claim to applicants' invention by someone who merely copied applicants' system software onto a computer-readable medium or who boxed up the hardware and software components of applicants' system and termed them a kit. Anyone of even less than ordinary skill at the time of applicants' invention would have realized that applicants' software could be placed on a machine-readable medium and, in fact, must have been on a machine-readable medium for applicants' invention to operate. Also, packaging software and computer hardware together and marketing them as a system, what applicants are calling a kit, was a conventional practice at the time of applicants' invention. The examiner takes Official Notice that computers with operating systems and related software were being marketed as systems (i.e. kits) at the time of applicants' invention as well as more specialized systems containing both hardware and software which were frequently referred to as turn-key systems. While applicants may wish to secure software-on-a-machine-readable-medium and kit claims to simplify enforcement of applicants' claims, such language represents only a trivial difference and does not justify omission of material limitation(s). The examiner would also note that while applicants argued "that software on medium claims such as claims 31-65 and 94 and kit claims such as claims 66-71 and 90-93 are materially different from apparatus and method claims 1-30" on page 14, lines 14-16 of their Amended Appeal Brief (Paper No. 19, filed 5/14/01), they also argued on page 9, lines 24-27 of their Reply Brief (Paper No. 22, filed 4/29/02) that "some of the reissue claims are broader than the surrendered claims in that they are presented in a method format, computer-readable medium format, or kit

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format as opposed to an apparatus format. However, a change in claim format is not considered to be a material difference. M.P.E.P. § 1412.02." It certainly is convenient for applicants that the same differences can be both material and immaterial depending on how applicants want to argue.

20. The examiner has made it quite clear that his position is that all of applicants new claims 31-94 constitute attempts to recapture surrendered subject matter. In support of this position he has pointed out that he views the full scope of the language of applicants' patented claims to constitute surrendered subject matter based the cancellation of applicants' originally filed claims in the face of the examiner's rejection of those claims and based on applicants' carefully-considered decision, following an in-person interview, to use the particular amendment language presented to make the claims allowable over the examiner's rejection.

21. He also has made it abundantly clear it is his position that none of the changes to the language of applicants' patented claims as exhibited in claims 31-94 constitute material differences from the original claims. He has also specifically refuted any recitation by applicants of what they have termed material differences in claims 31-94.

22. If for some unknown reason applicants have failed to argue their best examples of material differences in the language of claims 31-94, the examiner would encourage them to do so now. The examiner has clearly stated he sees no such material differences. If applicants are truly convinced there are such differences in their claims which they have not mentioned, now is

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the time to point them out to the examiner when such arguments can be considered and elicit a response.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William M. Treat whose telephone number is (703) 305-9699. The examiner works from home one day each week, and he works a flexible schedule, but he can normally be reached during the afternoons and evenings on four of the five weekdays.



WILLIAM M. TREAT  
PRIMARY EXAMINER